MINNESOTA INTERNATIONAL HEALTH VOLUNTEERS

# MID-TERM EVALUATION
# FOR
# DAGORETTI CHILD SURVIVAL PROJECT

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# GLOSSARY OF NAMES AND ACRONYMS

| | |
|---|---|
| AIDS | acquired immunodeficiency syndrome |
| AMREF | African Medical and Research Foundation, Inc. |
| AR1 | acute respiratory infection |
| AVSC | Association for Voluntary Surgical Contraception |
| barazzas | public community meetings |
| BCG | Bacille Calmette Guerin (vaccine against tuberculosis) |
| BOM | Board of Management |
| CBHC | community-based health center |
| W D | control of diarrhea1 disease |
| CHAK | Christian Health Association of Kenya |
| CHW | community health worker |
| CHWR | community health worker representative |
| c s | child survival |
| DIP | detailed implementation plan |
| DPT | diptheria, pertussis, tetanus |
| FP | family planning |
| FPPS | Family Planning Private Sector |
| HIS | Health Information System |
| HIV | human immunodeficiency virus |
| ID | identification |
| IGA | income-generating activities |

| | |
|---|---|
| jua kali | sheds constructed to provide small trade/craft shops a place to work with basic amenities |
| KAP | knowledge, attitude, practice |
| MIHV | Minnesota International Health Volunteers |
| MOH | Ministry of Health |
| NCC | Nairobi City Council |
| NCIH | National Council for International Health |
| NGO | non-governmental organization |
| OPV | oral polio vaccine |
| ORT | oral rehydration therapy |
| ORS | oral rehydration solution |
| PCV | Peace Corps volunteer |
| PVO | private voluntary organization |
| STD | sexually transmitted disease |
| TBA | traditional birth attendant |
| TOT | trainer of trainers |
| TT | tetanus toxoid |
| UNICEF | United Nations Children's Fund |
| URI | upper respiratory infection |
| U.S. | United States |
| USAID | United States Agency for International Development |

1: ASSESSMENT OF ACCOMPLISHMENTS

As of the time of midterm evaluation; How many months has this project been operating?

22 months

What has the project achieved to date in terms of measurable inputs (e.g. training sessions held), outputs (e.g. persons trained, mothers educated), and outcomes (e.g. immunization coverage, change in mother's use of ORT)?

Inputs

CHW training sessions: 96
TBA training sessions: 10
Health Education sessions
Youth Groups: 91
Individual/Clinic-Based Training: 132
CHW Home Visits: 85,927
Village Health Campaigns: 11
Community Outreach Clinics: 5
HIV/AIDS Barazas (public mtgs): 3
Distribution of Materials
ORT: 13,993
Condoms: 103,705
Foaming Tablets: 4,454

outputs

Trained CHWs: 237
Trained TBAs: 13
Youths educated: 2,005
Individuals educated: 4,750
Mothers receiving home visits: 13,640 (estimate)
Latrines constructed: 80
Patients served at health center: 61,722
Children weighed: 11,506

Outcomes

Immunization Coverage: more than 90%
Incidence of Diarrhea1 Disease: See 3: Assessment of Effectiveness under Diarrhea1 Disease Control
An tenatal Visits: 4,924
Family Planning Visits: 6,491

How many infants, children under five, and mothers have been reached by CS interventions to date?

# of children weighed in the clinic: 11,506

Type & volume of immunizations: September 1991 - June 1993

| | |
|---|---|
| Measles | 892 |
| BCG | 825 |
| DPT | 3,585 |
| OPV | 3,957 |
| TT | 3,978 |

Preventive visits at clinic:

| | |
|---|---|
| child welfare | 4,432 |
| antenatal | 4,924 |
| family planning | 6,491 |

Data used to calculate number of women and children contracted by CHWs and their proportion of potential benefits population:

| | |
|---|---|
| Population estimate 1989 census - 47,000 | Common estimate now - 62,000 |
| Infants <yr 1 - 6% 2,820 | Infants <yr 1 - 6% 3,720 |
| Children< 5yr- 22% 10,340 | Children< 5yr- 22% 13,640 |
| Children<15yr- 40% 18,800 | Children<15yr- 40% 24,800 |
| women15 - 49 - 25% 11,750 | women15 - 49 - 25% 15,500 |

There are an estimated 3,720 children less than 1 year of age and 13,640 less than 5 years. Women in their child-bearing years are estimated to be 15,500. Based upon clinic data and CHW estimates, it would seem that very few of these women and children have not been served by this project. (The population figure used here is from the 1989 provisional census data estimate; it is considered very conservative by both the project team and USAID, both of whom are estimating an actual population figure closer to a 100,000.)

What proportion is that of the total potential beneficiary population of infants, children under five, and women of child bearing age?

The available data indicates that close to 100% of the potential beneficiary population has had some level of contact with the project.

## 2: ASSESSMENT OF RELEVANCE TO CHILD SURVIVAL PROBLEMS

What are the major causes of child mortality and morbidity in the project service area?

From Health Center data collected in a recent 12-month period, 18% of 23,300 patients were diagnosed with respiratory problems, and an additional 2% with pneumonia.

From the 1991 Baseline Survey, of children under two plus high risk children under five, 17.4% had diarrhea within the last two weeks.

From the 1989 Demographic and Health Survey, we have the following morbidity data:

For children under five in the Nairobi area:

13% had diarrhea within the last two weeks. Of these, 67% sought consultation at a health facility.

14% had cough within the last four weeks. Of these, 77% sought consultation at a health facility.

From 1982 Ministry of Health, Health Information Systems Bulletin, V.4 iss. 4:

| Child Morbidity | Infants | l-4 years |
|---|---|---|
| pneumonia | 31% | 21% |
| diarrhea | 21% | 10% |
| measles | 10% | 8% |
| URI | 5% | 4% |

| Child Mortality | Infants | l-4 years |
|---|---|---|
| pneumonia | 31% | 25% |
| diarrhea | 12% | 9% |
| tetanus | 17% | 0% |
| measles | 8% | 24% |

What are the survival interventions and health promotion activities initiated by the project?

The project interventions include: ORT, immunization, nutrition, family planning, maternal health, education about STDs/AIDS, environmental health and safety, and treatment of illness and injury.

The following is a list of the topics which form the core curriculum for the

Community Health Workers trained by Dagoretti Community-based Health Program. 237 community health workers have completed training in the project area.

CHW curriculum

- Concept of Community-Based Health Care Program
- Concept of Primary Health Care
- Hygiene
  - Personal
  - Home
  - Environmental
  - Lice, Bedbugs, Scabies, and Jiggers
- Diarrhea, vomiting, and ORS
- Worms
- Eye diseases
- Nutrition
  - Food Groups
  - Budget
  - Diet during Pregnancy
  - Weaning Food
  - Growth and Development
  - Road to Health
  - Malnutrition (Kwashiorkor/Marasmus)
  - Breas tfeeding
- Mother and Child Health/Family Planning
  - Family Planning
  - Antenatal care
  - Childbirth
  - Immunizations
  - Venereal Diseases and AIDS
  - Group Teaching/Home Visits

Other community activities sponsored by the project include: Growth Monitoring of children under the age of 5; Outreach Immunizations through Community Outreach Clinic:: and the main clinic, and a "No-Missed Opportunities" policy in the clinic; Antenatai Care; Environmental Health; Construction of Latrines and Garbage Pits; Prevention of Home Accidents; and Awareness and Prevention of HIV/AIDS.

Are the mix of project interventions appropriate to address the key problems, given the human, financial and material resources available to the project and community?

Based on the findings of the baseline survey, the mix of interventions has been appropriate. This project makes extensive use of community volunteers so there is little salary expense to be maintained after grants end. Community-based traditional

birth attendants have received advanced training through the project, thereby increasing the level of services available to community members. The private/public arrangement with the Ministry of Health allows this project to provide affordable, high quality health services to the community.

Is the focus or prioritization of interventions appropriate?

At this time it appears that the project may be augmented with expanded programs in HIV/AIDS and family planning.

## 3: ASSESSMENT OF EFFECTIVENESS

Has there been sufficient progress in meeting stated objectives and yearly targets?

A quantitative evaluation for this mid-term report was waived by USAID-Washington, limiting our ability to demonstrate progress toward achieving our objectives. (Although the decision to waive the survey was made before the Project Director's accident, it proved to be amazing foresight. Doing a major survey would have been impossible in the wake of the accident.) However, we feel satisfactory progress is indicated by numerous surrogate and qualitative indicators. During the preparation of this evaluation, it has become apparent that our current HIS is inadequate and steps are being taken to remedy this situation. Although the clinic has been collecting substantial amounts of data, the clinic's location on the edge of the project area has complicated these collection efforts, particularly, for the target population.

Objectives by Intervention (as defined in the DIP)

Immunization

* Identify and record all project area children under the age of two who have not completed their immunizations.
* Fully immunize 70% of all project area children O-11 months.
* Immunize 95% of all women (6,350) in the project area who had been pregnant in the past 2 years with two doses of Tetanus Toxoid.
* Immunize 99% of all pregnant women who are seen for antenatal care at the health center with two doses of Tetanus Toxoid by end of year three.

Progress to Date:

Community outreach clinics by nursing staff to increase immunization rates have found immunizations relatively current and necessitated administration of extremely few vaccinations. It is felt that the overall immunization coverage in the project area is at least 90%. Most children (at least 85%) receive BCGs at the hospital of delivery. Approximately 5,000 antenatal visits (approx. 5 visits for each woman> have been made. Clinic staff believe that nearly all of these women received a complete series of TT vaccinations.

Prevention of AIDS and STDs

* 85% of reproductive age women (10,840) will be able to explain how AIDS and STDs are transmitted and identify at least one method of AIDS prevention.
* 6,000 condoms will be distributed each month in the community by the end of year 3.
* 50% of children aged 10 and older who are attending school will have participated in a classroom discussion or a CHW home discussion of AIDS and STDs.

Progress to Date:
Nearly 160,000 condoms have been distributed through August '93 for an average of nearly 7,000 per month. However, distribution has increased steadily over time and at present we are distributing nearly twice as many condoms as our original objective. It is felt that nearly all women have heard of AIDS, how it is transmitted, and how it can be prevented. However, based on anecdotal information, it is believed that many misconceptions about HIV transmission persist, such as the belief that it can be transmitted by mosquitos. The community-based program has been working with the secondary schools to train students as peer counsellors. During this reporting period, 30 peer counsellors at Ruthimitu High School have been trained out of a total student population of 500. These students are very enthusiastic in their efforts to learn about HIV/AIDS and to share information with their classmates.

Diarrhea1 Disease Control

* 90% or 11,500 of project area reproductive-age women will be able to identify an ORS packet and exhibit general familiarity with the product.
* 90% or 11,500 project-area reproductive-age women will be able to describe correct feeding practices during diarrhea1 episodes.
* 50% of mothers with children under two will be able to correctly describe how to prepare ORS at home.
* Decrease diarrhea1 incidence in 2 week period to 13% of households interviewed.

Progress to Date:
As testimony to the effectiveness of the CHW program, we note that there have been no cases seen in the clinic since April of severe dehydration needing referral to the hospital. During this period, however, ORS packets have been unavailable, which CHWs have complained about, indicating both their importance to CHWs and the perceived need by mothers within the community. In the absence of the ORS packets, CHWs have been teaching the recipe for home mix oral rehydration solution. From the total number of home visits, at least every mother with a child under five has received a visit from a CHW.

Nutritional Improvement

* 90% of under twos in project area will be monitored for normal growth as

indicated by their "road-to-health" cards. Growth monitoring will be done at the Health Center on 4,040 children in year 1; 4,620 children in year 2; and 5,190 children in year 3.

* At least 90% of (or 5,190) mothers will be breastfeeding their children under two by the end of year 3.
* The incidence of malnutrition (defined as less than 80% predicted weight for age) in under twos will decrease to 10% (or 580 cases) by the end of year 3.

Progress to Date:
Clinic staff and CHWs have noted no cases of moderate to severe malnutrition for over a year. The project has weighed children 11,506 times over a period of 22 months, not including those weighed in the mobile clinic. From the total number of home visits, it is believed that all women with infants in the project area have been instructed by CHWs about the importance of breastfeeding. Bottle feeding is rarely seen and it is believed that all women with infants breastfeed.

Treatment of Illness and Injury

*100 to 120 curative patient visits to the health center per day.
*99% of all prescriptions written per day will be filled at that time.
*100% of clinic-generated expenses for curative and preventive services covered by patient-genera ted income.

Progress to Date:
In the six months from January 1993 through June 1993, the average curative visits per day were 95.06, an increase of approximately 13.5% over the same period in 1992. Virtually all prescriptions have been filled at the Health Center over the last three months. This project involves a public/private partnership between MIHV, the Chandaria Foundation, Dagoretti Community, and the Ministry of Health. The MOH agreed to provide staff and essential drug kits, and these resources combined with usage fees paid by the community provide the majority of the needs of the Health Center. However, recent costs incurred due to the need to purchase drugs originally supplied at no charge from MOH may require additional financial restructuring to sustain these expenses.

Maternal Health

* Monitor and increase the percentage of women pregnant in the last 24 months who received prenatal care.
* Monitor and increase the percentage of babies under 24 months attended to by traditional birth attendants or health professionals.
* Monitor and increase the percentage of women with children under 23 months who know that they should gain weight during pregnancy.
* Monitor and increase the percentage of women not wishing to get pregnant who are using modern contraceptive methods.

Progress to Date:
The clinic has received 4,924 antenatal visits and 6,491 family planning visits.

Thirteen community TBAs have received advanced training. The CHWs and the Family Planning Field Educators distribute 7,000 condoms each month. From the total number of home visits, we feel that at least every mother with a child under five has received a visit from a CHW and been taught about the importance of weight gain and growth monitoring. The project has seen consistently rising numbers of FP clients and antenatal visits. It is felt that our maternal health objectives are being met.

Environmental Health Hazards

* 50% of households in the project area will have pit latrines and dispose of garbage appropriately.
* The incidence of burns in children under two will decrease by 25%.

Progress to Date:
During the last 3 months, no burns have been noted in this population by CHWs on home visits or seen in the Health Center. Visits to homes by members of the village health committees, CHWs, and the CBHC staff have greatly increased the number of homes with pit latrines and garbage pits. It is estimated that over 90% of households either have or have access to pit latrines which are used by the residents.

Are targeted high risk groups being reached effectively?

Because the project area is not the same as the area covered by the clinic, it is difficult to collect information regarding the target population. Up until now the clinic has not been collecting separate data on patients from the project area. The project has trained 237 CHWs who live and work throughout the project area. The CHWs are contacting the target populations on a regular basis. The health center is in the process of redesigning and implementing an HIS appropriate for monitoring target groups in the project area separate from the clinic catchment area.

An indicator of project effectiveness is that the mobile clinics are not finding populations which are not immunized or are malnourished. The mobile clinics were started in April 1993 and have continued to the present. During the period April through June 1993, approximately 10 mobile clinics were conducted. All areas have received an approximately equal number of visits. The site of the mobile clinic is determined based upon the input of CHWs.

Using figures obtained in September 1993, we obtain the following breakdown of clinic patients by area of residence:

Curative Patients Seen at Chandaria-MIHV Health Center
September 1993

| | | Project Area | | Outside Area | |
|---|---|---|---|---|---|
| | | # of Patients | % | # of Patients | Total # |
| Children < 5 yrs | New | 107 | 43 | 142 | 249 |
| | Revisit | 133 | 46 | 157 | 290 |
| Mothers 14-45 yrs. | New | 82 | 36 | 148 | 230 |
| | Revisit | 61 | 49 | 63 | 124 |
| All others | New | 139 | 42 | 191 | 330 |
| | Revisit | 114 | 48 | 124 | 2.38 |
| Total | | 636 | p-4 | 825 | 1461 |

From the above data we estimate that approximately 44% of all patients seen at the health center are from the project area.

If not, what are the constraints to meeting objectives and reaching high risk groups? One constraint is the distance from the clinic to some parts of the project area. Some project residents live as far as 10 km away from the health center. In some of these areas, road conditions are very poor and no public transportation exists (assuming that the person has sufficient financial resources to afford such transportation). To address this problem, outreach clinics have been conducted to ensure that everyone can access services.

## 4. ASSESSMENT OF RELEVANCE TO DEVELOPMENT

What are the main community barriers to meeting the basic needs of children?

The primary barriers are poverty and problems associated with transitory populations, such as discontinuity of care or follow-up. Dagoretti is increasingly becoming a community for transitory populations. Landowners, for example, are building more rental properties because of Dagoretti's proximity to Nairobi. Many of these renters have no access to land for growing their own food and are dependent on local markets to purchase their food. With high unemployment and steep inflation, many families have insufficient income to purchase food.

What has the PVO project done to date to increase the ability of families to participate and benefit from child survival activities and services?

The training of community health workers has brought the child survival activities into the community and directly into the homes of the families most in need. The project has also instituted periodic village health campaigns which involve CHWs

and village elders in going from house to house to ensure that everyone has proper pit latrines and garbage pits. HIV/AIDS has been the focus of community barazzas. Outreach clinics have been conducted to bring health care services into the communities, to capture immunization defaulters, to weigh children, and to treat sick adults and children. Two Field Educators for Family Planning spend their days in the field distributing condoms and advising community members on contraception (pills, surgical methods, IUCD, condoms, foam tablets, and natural method). In the initial months of the project period the clinic enjoyed the services of a community nutritionist, who set up nutrition education sessions in the community. Unfortunately, she was transferred and a replacement has only recently been assigned.

The structure of the project was designed to maximize community participation. Each of the three sections of the project area has a health committee made up of village elders; these committees also meet jointly on a monthly basis. The health committees provide direct linkages between the project and the villages. One member from each of the three health committees also serves on the Board of Management of the health clinic.

Finally, the project has a fund for providing free care to those who cannot afford to pay the fees charged. From October 1991 through June 1993, the health center has received 44,649 patients for curative care. Of these, 719 (1.6%) have been given free care.

Is the PVO fostering an environment which increases community self-reliance, and enables women to better address the health and nutrition needs of their families?

In addition to training and supporting the CHWs, the project has been implementing income-generating activities. A Peace Corps Volunteer with experience and training in small business enterprise has been working with each CHW group to develop their own scheme for increasing their ability to support their families. These activities have included vegetable raising, sales of flour, and the development of rental housing. In addition, negotiations are in progress to build a jua kali (an open-air small industry area) and a sanitary market (an established, covered market with drainage) where CHWs would be given priority in having a place to sell produce or other commodities. The project is currently investigating the feasibility of building a jua kali and/or a sanitary market as a means of supporting the CBHC program. The provision of spaces for CHWs would definitely be an incentive and reward for participation in the CBHC program. The additional income that individual CHWs would receive would also serve to improve their ability to meet the health and nutritional needs of their families.

## 5 ASSESSMENT OF COMPETENCE IN CARRYING OUT PROJECT

Are there any particular aspects of project design or implementation which may be having a positive or negative effect on meeting project objectives?

As the clinic was built on the edge of the targeted project area, it has been difficult to determine the progress for some of the project objectives due to the inadequacies of the existing HIS.

In addition, the project was designed to use funds generated through cost-sharing to support the curative and preventive services with continued support by MOH through seconded staff and essential drug kits. Our time frame for establishing sustainability appears to be too short and the attainment of this goal seems more distant at this time. MOH has not provided essential drug kits since April 1993 and the clinic has had to assume the responsibility for these costs, which now consume approximately half of the health center's budget. We are currently investigating the feasibility of having some of the seconded MOH staff or advanced nursing students from the University of Nairobi's Nursing School participate in CHW training and supervision as a means of combining clinic and CBHC activities to provide long-term sustainability.

The combination of the clinic and the community-based program has been successful in providing support for the overall project. The clinic lends credibility to the activities of the CHWs and the community-based program feeds both patient and community input into the clinic.

The use of an integrated structure has allowed the project to utilize the CHWs in all of the interventions rather than training different people for each aspect.

Please take into account the following points:

### 5.1 Assessment of Design

Has the project limited its project area and size of impact population?

The project has limited its project area and the size of the impact population. However, because of the location of the clinic, the population benefitting from the project is larger than that which was targeted.

Has there been a careful expansion of project service activities?

Yes. The number of CHWs has increased throughout the project and their activities have expanded to include outreach clinics, patient education in the clinic waiting room, condom distribution, and HIV/AIDS awareness. The project has also expanded its HIV/AIDS intervention to include the training of peer counselors at a

local secondary school. In addition, the project received a subgrant from Family Planning Private Sector to strengthen the family planning component, which includes training for the nurses and the provision of two field educators. The clinic now serves, in cooperation with the Marie Stopes clinic, as a site for monthly tubal ligations and vasectomies. A study of the feasibility of income-generation was conducted through funding provided by the McKnight Foundation. A Peace Corps Volunteer was then added to the staff to implement the findings of the study.

Has the PVO set measurable objectives of outputs and outcomes?

Measurable objectives have been established, however the data collection/HIS structure needs to be strengthened.

Has the project management been willing to make changes when appropriate, and can the PVO justify or give a reasonable explanation of the directions and strategies the project has undertaken?

The management staff has made a number of changes based on the expressed needs of the community. Examples of these include: the HIV/AIDS peer counselling training for secondary school students; the addition of staff to research and support income-generating activities for the CHWs; changes to the clinic fee structure; and the addition of a second clinical officer to the Health Center. The direction and strategies undertaken by the project have been developed according to the stated needs of the community and by determining what works and what does not.

## 5.2 Assessment of Management and Use of Data

Is the project collecting simple and useful data?

Data collection has been driven by the extensive data requirements of the Ministry of Health. The MOH requires an immunization summary, clinic morbidity data (on 36 diagnoses), and lab results. However, attention needs to be given to the data collection system in order to collect data more useful in evaluating the project itself, both in terms of grant reporting and the on-going assessment of needs.

Do the indicators need refinement?

Yes. The indicators need to be refined to better reflect impact on the targeted population.

What is the balance between qualitative and quantitative methods of data collection?

Both the clinic and CBHC programs emphasize quantitative data collection, yet to assist in on-going planning and outcome assessment, existing quantitative measures need to be refined and more appropriate qualitative measures must be developed.

Is the project using surveys for monitoring and evaluation?

Several surveys have been conducted or are currently being planned or analyzed. These surveys were conducted in conjunction with the Medical and Nursing Schools.

A maternity needs study was conducted in the summer of 1992. Ninety-nine mothers participated in this survey, 25% of whom delivered their children at home. The overall complication rate was 2%. The majority of mothers (93 out of 99 mothers surveyed) attended an antenatal clinic regardless of whether they delivered at home, at a hospital, or at a maternity center. Very few respondents began antenatal care before the third month of pregnancy. Most made initial antena tal visits by month four, and nearly 40% began care by the seventh month or later. These results emphasized the need for teaching the importance and encouragement of earlier antenatal care for pregnant mothers.

In June 1993, advanced nursing students conducted a survey of 28 mothers and their children to determine compliance with tetanus toxoid vaccination schedules. In this survey, all children were found to be appropriately vaccinated according to the MOH TT vaccination schedule. However, several mothers were found not to be in compliance and were referred to nursing staff for vaccinations. Overall, TT vaccination coverage appears to be quite high according to the results of this survey.

In addition, recent surveys concerning condom usage and iron deficiency are currently being analyzed. A survey about AIDS orphans is also being developed.

How were baseline data used for project development?
Are data being used for decision making? (Please give examples)

The baseline data was used in the development of measurable objectives and strategies in the Detailed Implementation Plan.

Because the baseline survey indicated that there was a 40% noncompliance rate for immunizations, community outreach clinics were established to insure that all children were fully immunized. Current information puts the immunization rate at 90%. The outreach clinics will continue, in an effort to reach the remaining 10%, as it is thought that this population is less likely to make it into the Health Center.

Additionally, information gained through the baseline data and concern expressed by the community led the project to place a stronger emphasis on HIV/AIDS awareness efforts.

Improvements seen in nutritional status and in CDD have allowed us to begin focusing on other interventions, such as HIV/AIDS and family planning, and to consider ARI interventions in a grant extension/expansion.

Finally, our high distribution rates of condoms have led us to consider selling them as a potential IGA for the CHWs.

Is the project's routine health information system fully functional?

There is some question as to whether the current system is adequate to evaluate the effects of the project. The system does meet the requirements of the MOH and the information is sufficient to manage the clinic operations. However, development of an effective means of gathering data for the community-based side of the project is also underway.

Do the local staff have the management and technical capacity required to maintain the health information system?

Education in management and technical capacity building will be needed to maximize collection and utilization of data.

Have the results of the information collected been shared with data collectors, project staff, counterparts, and community members?

Clinic financial information is shared with the Board of Management, the staff, and the Joint Health Committee. CHW data is shared with the MOH and USAID. Curative care data is provided to the MOH on a monthly basis.

Is the PVO headquarters or project level making any attempt to maximize lessons learned by documenting, sharing, or institutionalizing their lessons?

The project is documenting a number of lessons learned thus far, many of which are having an impact on the development of MIHV's new project in Uganda. Some of these lessons are listed below:

-Management training & development, and the establishment of effective administrative systems are critical to successful project development.

-Community development needs to occur simultaneously with development of the CBHC program.
-The economic level of community members directly impacts their health and well-being.
-CHWs are expensive to train and maintain.
-The involvement of existing community social structures needs to be pursued vigorously.
-HIS needs to be driven by both MOH requirements and on-going assessment of project goals.
-The income from the clinic is not sufficient to support the CBHC staff.
-Use of long-term volunteers gives stability to the project.
-Use of short-term volunteers for technical assistance in well-defined areas is appropriate.
-Capacity building of education oriented counterparts has been very useful and productive.
-Use of fee-for-service system in clinic has been successful.
-Public/private collaboration between MIHV/Chandaria/MOH has been highly successful.

5.3 Assessment of Community Education and Social Promotion

What is the balance between health promotion/social mobilization and service provision in this project?
Is the balance appropriate?
Is education linked to available services?

MIHV's interventions for immunization, family planning, CDD, and nutrition are well balanced between health promotion and service provision. The CHWs do a good job of promoting health within the community through home visits, village health campaigns, outreach clinics, follow-up visits with clinic patients, and health education sessions in the waiting room of the clinic, as well as distributing condoms and ORS packets. The clinic is an important force in the delivery of immunizations, contraception, and clinical care. In the area of environmental health, the project has promoted the building of latrines and imparted an idea of the basic design, but there is no provision for technical support, nor are inputs available. Condoms distributed for family planning are also serving to support the HIV/AIDS component, which promotes HIV/AIDS awareness through community barazzas.

Has the project carried out any community information, education, or communication activities?

Village health campaigns and school programs are conducted on a regular basis. There have been a number of community barazzas to address health issues. The CHWs, in addition to their regular community contacts, conduct daily health education sessions in the clinic waiting area.

Was there any attempt to utilize knowledge and practice data, or data from focus groups, in-depth interviews, etc. in developing the messages?

The project initiated the intervention for HIV/AIDS in response to information received through the needs assessment and continuing community requests for more education. Condom promotion was developed because of the low number of respondents who identified it as a means of preventing the transmission of HIV. The curriculum for the CHWs reflects the issues that they have identified as being important in their community.

Have the messages been tested and refined?

Health promotion messages are informally tested and refined through feedback from the CHWs in monthly meetings and continual training sessions for new CHWs. Supervisory visits by CBHC staff provide additional opportunities to test and refine health education messages.

How does the PVO ensure that messages to mothers are consistent?
The CBHC staff conduct home visits with new CHWs to assess their skills and the content of their message. The CHWs also hold monthly meetings, during which they review information and do role plays of the different topics. The CHWRs are also able to work towards consistency among the CHWs for whom they are responsible.

Does the project distribute any printed materials?

Yes. The project distributes brochures and pamphlets developed by the Family Planning Private Sector, AMREF, and UNICEF.

Did the PVO pre-test printed materials?

No. All materials being utilized have been pre-tested by the organizations providing them to the project. In addition, CHWs provide feedback concerning the usefulness and appropriateness of these materials.

Do members of the community regard these materials as simple, useful, and of value?

The project has not assessed this issue formally. Feedback obtained through the CBHC system (CHWs), however, indicates that the community values the materials.

Has the project been creative in its approach to community education, such as incorporating any non-traditional or participatory education activities?

The project utilizes a number of psycho-social methodologies, including discussion, demonstration, role plays, songs, and videos.

Has the project assessed the level of learning that has occurred with these methods, or is the evidence for effectiveness anecdotal?

There is the need to formally assess both the training of the CHWs and the level of learning on the part of the mothers.

Informal evaluation is built into the project, however. For instance, each session of CHW training has a defined action-based objective. If the session is on the proper disposal of garbage, the objective would be that by the end of the session the CHWs will know the problems caused by the improper disposal of garbage, how to prevent these problems, and how to develop a plan to share this information with their neighbors. A series of evaluation questions are asked at the end of the session to determine what has been learned. The following are the questions developed for the session on garbage disposal.

What are the dangers of throwing away garbage carelessly?
Which are the diseases caused by throwing away garbage carelessly?
What can we do to prevent the problem?

The CHWs also do role plays on how to approach their neighbors about garbage disposal. During supervised home visits the CHWs approach and information are evaluated and any necessary corrections made.

## 5.4 Assessment of Human Resources for Child Survival

How many persons are working in this child survival project?

| | | | |
|---|---|---|---|
| Paid by project | 6 | Paid by clinic | 11 |
| Paid by MOH | 12 | Paid by FPPS | 2 |
| Peace Corps | 1 | CHWs | 177 |
| CHWRs | 60 | TOTs | 4 |
| Jnt Hlth Cmte | 60 | Brd of Mgmt | 10 |
| Total | 343 | | |

Does the project have adequate numbers and mix of staff to meet the technical, managerial and operational needs of the project?

The project has been adequately staffed to this point.

Do these staff have local counterparts?

The staffing ratio during this reporting period 4 Americans to 352 Kenyans. On the management team the ratio is 3:13.

Are community volunteers taking part in this project?
How many are in place?

Yes, the following community volunteers are integral members of the project team: 177 CHWs, 60 CHWRs, 60 Health Committee members, and 3 members of the Board of Management are community members.

Are they multi-purpose workers or do they concentrate on a single intervention?

Mu1 ti-purpose.

Is their workload reasonable?

The CHWs are asked to offer 2 hours per week after their training, but the CHWs report that they generally spend more time than is requested. There are six groups of CHWs which meet twice monthly for 2.5 hours on average to report on their activities, ask questions, seek help, and plan income-generating activities. In addition, the CHWRs meet monthly.

The village health committee members generally meet l-2 times per month for about 3 hours per meeting. The Joint Health Committee meets once each month for 2-3 hours. The BOM meets once per month for two hours. Board committees meet between Board meetings.

How many days of initial training and how many days of refresher training have they received since the start of the project?

The CHWs receive 420 hours of initial training and 180 hours of refresher training. The training schedule is flexible and generally entails two half days each week for a period of 6-8 weeks. Traditional Birth Attendents from the area have received two weeks of training. Additionally, the Village Health Committees and the Joint Health Committee have received some leadership training.

Is there evidence the PVO carried out a needs assessment before embarking on initial and refresher training?

The initial curriculum was designed to address the project's interventions, which were in turn established in response to baseline surveys. In addition, at the start of each training program the trainees are given the opportunity to provide input regarding topics that they would like to have covered.

Was the training methodology appropriate for the nature of the health workers to carry out assigned tasks?

The training program was designed to accommodate both literate and non-literate participants. The training methodologies have been developed through research and experience and include discussion, role plays, demonstration, songs, and videos.

## 5.5 Assessment of Supplies and Materials for Local Staff

What educational or other materials have been distributed to workers?
Do these materials or supplies give any evidence of being used?
Are they valued by the health worker?
Are they appropriate to the health worker's job?

The CHWs are given brochures on family planning and HIV/AIDS, condoms, and ORS packets on a regular basis. These are supplemented with other materials that become available, e.g., foam tablets. The CHWs have found that the materials are well received. The Health Center also receives frequent requests from patients for ORS packets, condoms and foam tablets. These materials enlighten the community on issues concerning health and provide life-saving interventions. Brochures (e.g., on AIDS, FP, nutrition, and diarrhea1 control) also facilitate the education conducted by CHWs in the community. CHWs and patients request brochures and ask questions about areas which they do not understand.

Do the local staff volunteers have the necessary materials, supplies, and equipment to carry out their current responsibilities?

There is a need to assess both the training materials and the ability to provide volunteers with materials.

## 5.6 Assessment of Quality

Do the local project staff currently have the technical knowledge and skills to carry out their current child survival responsibilities?

HAVE:
Strong clinical and community experience
Strong management sys tern
Support system provided by the Joint Health Committee, the village health committees, the CHWs and the CBHC staff
Leadership at the community level
Group facilitation
Willingness to volunteer
Strong community spirit
Ability to develop and implement training protocols
Survey skills
Strong community support

NEED:
Stronger Health Information Sys tern
Increased documentation of CHW activities
Better monitoring and evaluation of program objectives
Testing and refinement of training materials
Stronger integration of CBHC and clinic

Do the local staff counsel and support mothers in an appropriate manner?

The local project staff is very strong in counselling and support. The CHWs have been particularly effective in their referrals to the clinic. In addition to continuing education on clinical areas, the clinic staff has attended training on the patient's bill of rights and has participated in role plays concerning the patient's point of view.

## 5.7 Assessment of Supervision and Monitoring

What is the nature of supervision and monitoring carried out in this project?
Is it field-based supervision?
Has supervision of each level of health worker been adequate for assuring quality of services?

There are several sources of supervision for the CHWs. For every three CHWs there is a CHW Representative. There are two professional staff members dedicated to the CBHC program. In addition, the CHWs are divided into six groups and each group has a representative who facilitates supervision. Each group meets with the project staff twice each month for an average of 2.5 hours each meeting. In addition, CHWRs meet monthly with CBHC staff. Project staff make frequent trips to the field.

From the viewpoint of the health worker, how much of the supervision is counselling/support, performance evaluation, on-the-job education, or administration?

Based on the evaluation team's observation and interaction, it appears that supervision seems to be weighted towards counselling/support and on-the-job education. Administrative interactions are limited and actually need to be strengthened. Performance evaluation is informal, occurring naturally in monthly meetings, during home visits with CBHC staff accompanying CHWs and CHWRs, and when CHWRs accompany the CHWs.

What are the monitoring and supervision requirements for the remainder of the project?

The project needs to revise its reporting structure to capture useful data regarding CHW interactions with the community. Such information as the number of women and children contacted, or the lessons imparted, is not currently collected, Nor is there a structure in place to track and count referrals. Since the CHWs include literate and non-literate volunteers, it will be extremely difficult for them to follow detailed reporting schemes. For the remainder of the grant period, the focus for improvement will be specific areas such as referrals and follow-up of patients. Overall, the existing system using CHWRs is working and can be improved with specific, targeted improvements.

The community health nurses working in the clinic and advanced nursing students from the School of Nursing will become more involved in the training and supervision of the CHWs.

The project would like to develop a contract with a Kenyan physician to continue working with a physician volunteer in supervising and monitoring the care provided in the clinic.

## 5.0 Assessment of Use of Central Funding

Has administrative monitoring and technical support from the PVO regional or central offices been appropriate in terms of timing, frequency and needs of the field staff? -If not, what constraints does the project face in obtaining adequate monitoring and technical support from PVO regional or central offices?

Administrative monitoring has been fine. Different volunteers have brought a variety of technical skills. There has been problems in some areas such as identifying appropriate computerized accounting and financial reporting software. The addition of a Program Officer to the home office will enable more frequent communication between the home office and the field. The Medical Director has

been a volunteer, which limits his time and availability. Providing some partial reimbursement for his time would increase the amount of time he can spend with the project.

How much central funding has A.I.D. given the child survival grant for administrative monitoring and technical support of the project?
Do these funds serve a critical function?
Do those functions appear to be underfunded or overfunded?
Are there any particular aspect of A.I.D. funding to the central office of the PVO that may have a positive or negative effect on meeting child survival objectives?

The project budget provides $122,730 for headquarters costs over the three-year grant period; this budget assumed a decreasing effort from home office staff for administrative monitoring and technical support from 50 percent in year one, to 40 percent in year two, and 30 percent in year three. In reality, home office support was 67 percent in 1991, 51 percent in 1992, and 28 percent year-to-date in 1993. The latter, however, does not reflect the tragic accident of the Kenya Project Director in July, 1993 which shifted considerable project administrative functions from the field to the home office (final amount has not yet been determined).

Home office support is critical to successful achievement of project objectives. During this reporting period, home office support has included assistance in meeting reporting requirements, recruitment of needed human resource talent, procurement of supplies and computer equipment, consultation in technical areas of child survival and sustainability, and fundraising for the PVO matching requirement. Under normal project operations, the relationship between home office and field personnel is one of partnership. Some of the questions which the project has had to wrestle with have had no easy answers, e.g., how to sustain a program, what benefits need to be sustained and which let go, how to deal with issues of sustainability amidst the overwhelming needs of an impoverished community/country, and how to maintain the interest and involvement of volunteers. These are the types of issues with which the partnership of expertise and experience between home office and field staff are best applied. In extraordinary situations, the home office also serves a vital role of project backstopping for whatever needs to be done, and providing moral support to the field staff.

The pipeline analysis which is attached hereto indicates that AID funds of ~~$38,213~~ -5,523 remain for home office support in year three of the project. On the other hand, the PVO budget of matching funds for home office support is already over-budget by $99,137 effectively creating a match of 86 percent. At this point in project reporting, AID funds for home office support are under-funded.

Under-funding of home office support has a negative effect on meeting child survival objectives. The tragic accident this summer in Kenya stretched the home office beyond its capacity; the meager budget allowed for project support causes bare

bone staffing, and ignores organizational needs to develop institutional infrastructure in personnel, finance, information systems, etc. Home office capacity needs to be developed to enable it to deal with the unexpected catastrophe in the field as well as anticipate future needs of child survival programming.

## 5.9 Assessment of PVO Use of Technical Support

What are the types of external technical assistance the project has needed to date, and what technical assistance has the project obtained?

The project has used external technical assistance in developing income-generating activities. The McKnight Foundation provided support for the income-generation needs assessment and the Peace Corps has provided a volunteer for implementation of the activities. Ongoing advice and assistance is being provided on the establishment of a small-scale loan program for CHW groups.

The home office provided consultation on the DIP. A number of resources have been utilized to implement surveys, including the University of Nairobi's Medical and Nursing Schools and AMREF. The Family Planning Private Sector has provided training in contraceptive methods. AMREF provides regular quality assurance reviews of the clinical laboratory. Dr. Mammo from World Vision did the external evaluation for the mid-term.

Staff members (Lois Miano and John Ngotho) attended the HIV/AIDS integration workshop sponsored by USAID in Uganda.
Lois Miano, Deputy Director for Programs, attended the PVO Child Survival workshops in Nigeria and New Mexico and the NCIH annual conference in Washington, DC.

Loyce Jones attended a KAP survey workshop at Johns Hopkins University.

MIHV is unique among PVOs in its extensive use of U.S. professional volunteers to provide technical support in their areas of expertise. These have included a clinic administrator who served for two years setting up the administrative systems for the clinc and developing an administrative manual. In addition, a physician volunteer has been consistently associated with the project to provide continuing education and quality assurance to the clinic component, to integrate the clinic with the community-based program, and to develop relationships with the University of Nairobi's Schools of Medicine and Nursing and with the Ministry of Health.

Was the level of technical support obtained by the project adequate, straight-forward and worth-while?

It is too early to tell in the case of the IGA. On the DIP, the support was very good.

There has been some trouble obtaining results from a number of the surveys which have been done by students at the University due to a lack of funds for analysis.

The Deputy Director for Programs feels that both the Uganda and the New Mexico workshops were most helpful and have provided her with information that she has been able to integrate into the program in Dagoretti. At the Uganda meeting, she learned about ways of integrating STD control with HIV/AIDS prevention strategies in the community. The New Mexico meeting was helpful in learning about how community-based health care is organized elsewhere. It was there that she learned about different CBHC organizational structures and gave her the idea of having CHWRs in Dagoretti.

Are there any particular aspects of the technical support (from all sources) which may have had a positive or negative effect on meeting project objectives? (For example, consultant visits, evaluations, workshops, conferences, exchange field visits).

The use of U.S. professional volunteers has been key to project success. Not only do they bring technical and management expertise to the project, but they also bring the new energy, new perspectives, and insight that someone new to a project can provide. The HIV/AIDS workshop in Uganda is proving to be valuable in the development of the project's HIV/AIDS intervention.

Is there a need for technical support in the next six months?

Technical support in the following areas would be useful:
Development of IGAs; simple, effective health information systems; survey design, implementation, and analysis; development of monitoring and evaluation systems which will serve the needs of the project and be helpful to the participants; and using data in program planning and development.

If so, what are the constraints to obtaining the necessary support?

There are only limited funds available, so it will be necessary to rely heavily on volunteer support.

5.10 Assessment of Counterpart Relationships

What are the chief counterpart organizations of this project and what collaborative activities have taken place to date?

Ministry of Health: Provision of staff, medical kits, vaccines, administrative forms,

and educational posters. Representation on the Board of Management.

Family Planning Private Sector (FPPS): Field educators, training support (train clinical staff and provide replacements), supplies (pills, condoms, etc.), equipment, and brochures.

The Chandaria Foundation: Financial support for clinic building, and management support. Representation on the Board of Management.

Kikuyu Hospital: Training of TBAs and training on sterilizing equipment. Referrals of patients from clinic.

School of Nursing: Community-based field experience, surveys, and community-based research.

School of Medicine: Board of Management representation, surveys, and community-based research.

AMREF: Lab set up, on-going annual quality assurance evaluations, and consultations on other health needs.

US Peace Corps: Provided volunteer to work with CHW groups on income generation.

Rotary: Assistance with obtaining supplies and donation of equipment and materials. Board of Management representation.

Is there any exchange of money, materials, or human resources between the project and counterparts?

Medical kits are provided and clinic staff are seconded from the Ministry of Health. Chandaria has provided financial support. FPPS provides equipment and personnel training and support. Rotary has provided financial and material support.

Does the counterpart staff have the managerial and technical capacity to eventually take on the functions necessary to operate effective child survival activities?

There is no single counterpart that will take over the entire project. Neither the MOH nor the NCC is in a position to take over and effectively manage the project. Chandaria will support the clinic side of the operation for 5 years after MIHV departs. MOH will continue to provide staff, and views the clinic as part of their system. Although the CBHC staff have the technical and managerial capacity to continue the program, the community-based program does not have the financial support needed to continue at this time.

Counterparts have been trained to continue clinic operations, but there is no one able to assume overall clinic management at this time. A Kenyan physician is needed to provide clinical monitoring and supervision, quality assurance monitoring, continuing education for clinical staff, and continued development of the clinic component.

Is there an open dialogue between the PVO project and counterparts?

There is regular dialogue with Chandaria, the Schools of Medicine and Nursing, Kikuyu Hospital, and FPPS, but there needs to be more exchange with MOH and NCC. The Project Director and the Deputy Director for Administration are members of Rotary and attend weekly meetings. Senior staff attend monthly meetings of the Joint Health Committee. Three community representatives serve on the clinic's Board of Management along with representatives of the Chandaria Foundation, District Administrator's Office, Provincial Medical Office, Rotary Club, and University of Nairobi Medical School.

## 5.11 Assessment of Referral Relationships

Identify the potential referral care sites and comment on access and service quality. Has the project made appropriate use of these referral sites?

The project refers families who do not have access to sufficient food to the Red Cross. There the families receive the support they need. The Kikuyu Hospital receives referrals for acute care and for deliveries. Marie Stopes provides services for voluntary surgical contraception. This service is now provided once a month in the clinic. Kenyatta National Hospital also accepts referrals for acute care. Referrals for HIV/AIDS counselling and testing are made to Kenya Red Cross, Kikuyu and Kenyatta Hospitals.

What is the continuity of relationships between the referral site and the community project?
Is the dialogue between project and referral site adequate?

The project does not get information back from these institutions. In some cases the CHWs provide linkage. Continuity is best when we provide transport and establish a presence.

Is the project taking any steps to strengthen the services of the referral site or increase community access to the referral sites?

There have been some discussions on how services can be better coordinated, particularly with Kikuyu hospital. In the past, the project sent tubal ligation/vasectomy referrals to Marie Stopes; they now come into the community once every month to do the procedure at the clinic. A vehicle was donated to the project which is reserved for emergency transport of patients to the hospital when necessary.

5.12 Assessment of PVO/NGO Networking

What is the evidence for good networking with other PVO and NGOs working in health and child survival?

Dagoretti Community Health has membership in the NGO network and on the training coordinating committee. The project recently received an invitation from the Christian Health Association of Kenya (CHAK) to send representatives to attend a training of HIV/AIDS counsellors. The project received a Peace Corps Volunteer to work with the CHWs on income-generating activities. Other examples of networking include our relationships with Marie Stopes/AVSC, FPPS, AMREF, World Vision, and the Red Cross, and the project's coordination of CHW activities with neighboring clinics.

Are there any particular aspects of the situation which may have had a positive or negative effect on networking?

Positive: We are visible and accessible so we tend to get a lot of invitations from other organizations. The project has been very successful in developing a public/private partnership with the Chandaria Foundation and MOH which has resulted in a cost-effective, affordable health center providing curative services in a qualitative manner.

Negatives: Delays in communications often cause the above invitations to arrive too late. For example, the project recently learned about a FPPS workshop which we

would have liked to have sent one of our nurses. Unfortunately, she will be on leave. If we had known earlier, we might have scheduled more effectively. In general, communication is slower here and we do not always have time to avail ourselves of all opportunities.

Restrictions on interaction with neighboring NCC clinics also prevent networking.

Can the project cite at least one lesson learned from other PVOs or other child survival projects?

One lesson learned was that it is better to use people who have a source of income outside of the project and who can afford to volunteer as TOTs, rather than using community volunteers.

5.13 Assessment of Budget Management

How does the rate of expenditures to date compare with the project budget?

The total AID budget for the full grant period is already 92.7 percent spent down during the first 24 months of the project. The PVO budget is already over budget by $275,755 effectively making a total project match of 45 percent.

Is the budget being managed in a flexible but responsible manner, and can the PVO justify shifts that may have occurred?

The budget is being managed as flexibly and responsibly as we are able in an environment of hyper-inflation and currency devaluation. When the original budget was prepared the exchange rate was 22 Ksh/U.S. dollar; at the time of this report, the exchange rate is 65 Ksh/U.S. dollar and has been as high as 80 Ksh/U.S. dollar during the past 12 months. The project has had to cope with escalating inflation (estimated at 200 percent for such items as drugs and medical supplies) and devaluation of currency since the beginning of the grant period.

The project budget provided $122,730 for headquarters costs over the three-year grant period; this budget assumed a decreasing effort from home office staff for administrative monitoring and technical support from 50 percent in year one, to 40 percent in year two, and 30 percent in year three. In reality, home office support was 67 percent in 1991, 51 percent in 1992, and 28 percent year-to-date in 1993. The latter, however, does not reflect the tragic accident of the Kenya Project Director in July, 1993 which shifted considerable project administrative functions from the field to the home office (final amount has not yet been determined).

The pipeline analysis which is attached hereto indicates that AID funds of $35,051 remain for year three of the project. On the other hand, the PVO budget of matching funds is already over-budget by $247,500 effectively creating a total project budget match of 56 percent, or 76 percent of USAID's project-to-date contribution.

Can the project achieve its objectives with the remaining funding?

Unless MIHV continues to increase the proportion of its match to the overall budget, the project cannot achieve its objectives with the remaining funding. MIHV remains committed to the project and the community of Dagoretti and will do whatever it can to maintain the project until additional funds can be obtained through an expansion/extension grant from USAID child survival.

Is there a possibility that the budget will be underspent at the end of the project?

There is no way the project budget will be underspent at the end of the project.

6: SUSTAINABILITY

Are the incentives received by community volunteers,project staff, and counterparts meaningful for project commitment?

Community volunteers: Picture ID-cards, T-shirts/pins, tea & mandazi, IGAs. These incentives seem to be effective at this point. There is a certain amount of status which accrues to CHWs, CHWRs, and Joint Health Committee representtatives which is difficult to measure.

Clinic staff are committed. The project is currently reassessing allowances which are paid in addition to salaries from the MOH.

Project staff has adequate salary plus fringe benefits, although the latter most likely will not be sustained after the end of the grant period.

Would those incentives continue once A.I.D. project funding ends?

Other than the status associated with the positions, existing incentives are likely not to be continued. The IGAs are not developed sufficiently at this time to have a sustaining effect. There is no ongoing revenue stream outside of clinic fees to sustain the incentives for community volunteers.

What are the steps the project has undertaken to promote sustainability of effective child survival activities once project funding ends?
The clinic is sustainable based on the combination of Chandaria's commitment, the fee-for-service structure, and governmental support.

There are some questions regarding the sustainability of the community-based program, however. Nevertheless, the knowledge that has been imparted will not disappear, and there are indications that to some extent the CHWs will continue to work in their communities, if only with their own families and friends. It is hoped that the income-generation activities will provide additional support that will allow the project to continue to operate. Project efforts to develop IGAs have been complicated by difficulties in obtaining land leases for construction of a sanitary market and jua kali. Although the money for construction has been committed, nothing can happen until a lease is secured. Rental income from these enterprises was to be committed to sustain the CBHC program.

How is the community involved in planning and implementation of project activities?

The village health committee structure allows community involvement in all aspects of planning and implementing project activities. Input is also received on a regular basis from the CHWs and the people they contact. Three representatives from the community serve on the Board of Management for the Health Center.

Do community members see this project as effective?

The community members we spoke with for this evaluation were very positive about the impact of the project.

Is there a demand in the community for the project activities to be sustained?

The demand is there and many people will do what they can to see that the project is sustained. The major factor for success is the state of the economy.

Is the MOH involved in the project?

The clinical staff is seconded from the MOH; for most of the reporting period, the MOH also provided medical kits of basic pharmaceuticals semi-monthly. These were suspended due to economic difficulties.

Does the MOH see this project as effective?

The evaluation team spoke to the matron in the provincial medical office, Mrs. Kiragu. She was very supportive of the project and felt that it serves as a model for the rest of the system. A representative from the provincial medical office serves on the Health Center's Board of Management.

Are there any concrete plans for the MOH to continue particular project activities after funding ends?

The MOH views the clinic as a part of its system within Nairobi province and is willing to continue to support the clinic after outside funding ceases. Due to financial constraints, however, this support will most likely not extend to the community-based program.

Do local organizations see the project as effective?

The evaluation team interviewed Mary Ibutu from FPPS and Emma Karanje Ndario from the Red Cross. Both organizations have been very satisfied with their interactions with the project and are supportive of the interventions in place.

Drs. Onyango and Mohamed-Ali from the Nairobi City Commission were interviewed. They were both very supportive and felt that the project is an effective one. At the same time, they were extremely reticent to commit to insuring its sustainability.

The University of Nairobi's School of Medicine and School of Nursing utilize the clinic for community health rotations and have signed agreements to strengthen and expand these ties.

Are there any concrete plans for project activities to be institutionalized by local NGOs?

The Chandaria Foundation is committed to continuing those activities centered in the Health Center. It also has expressed an interest in expanding, to sponsor similar projects in the Nairobi area.

## 7. RECURRENT COSTS AND COST RECOVERY MECHANISMS

Do the project managers have a good understanding of the human, material, and financial inputs required to sustain effective child survival activities?

Yes. The management staff have worked together to create a stable and sound foundation for child survival activities and understand the human, material, and financial resources needed to sustain it.

What is the amount of money the project calculates will be needed to cover recurrent costs?

The following calculations are based on actual expenses at year-end 1993 using current exchange rates (65 Ksh/U.S. dollar); no allowance for inflation has been included.

COSTS (PER MONTH) WHICH ARE AND WILL BE PAID (IN-KIND) BY THE MOH

| | | |
|---|---|---|
| Employee Expenses | | |
| Clinical Officer (1) | KSh 8,400 | |
| Community Nurses (7) | 33,600 | |
| Nurse-in-Charge (1) | 5,200 | |
| Laboratory Technicians (3) | 14,400 | |
| Nutritionist (1) | 4,200 | |
| Pharmacy Tech. (1) | 4,800 | |
| Total Employee Expenses | | KSh 70,600 |
| Medical Expenses | | |
| ORT Packets | 1500 | |
| Condoms | 40,000 | |
| Spermicidal Foaming Tablets & Vaccines | 100 | |
| Total Medical Expenses | | KSh 41,600 |
| TOTAL MOH RECURRENT MONTHLY (IN-KIND) CONTRIBUTION | | KSh 112,200 |
| TOTAL MOH MONTHLY CONTRIBUTION @ KSh 65 per dollar | | $ 1,730 |
| PROJECTED ANNUAL MOH CONTRIBUTION | | $ 20,760 |

MONTHLY RECURRENT COSTS WHICH ARE AND WILL BE PAID BY THE COMMUNITY VIA HEALTH CENTRE CURATIVE CARE FEES

| | | | |
|---|---|---|---|
| Employee Expense | | | |
| Clerical Comp, Taxes, Benefits | KSh | 23,240 | |
| Adm. Comp, Taxes, Benefits | | 12,880 | |
| Tech'1 Comp, Taxes, Benefits | | 13,720 | |
| Temporary Employees Comp | | 9,650 | |
| Total Salary Expense | | | KSh 59,490 |
| Other Employee Expenses (meetings, tea, etc.) | | 6,080 | |
| Total Employee Expense | | | KSh 65,570 |
| Supplies | | | |
| Facility | Ksh | 2,670 | |
| Office | | 8,840 | |
| Drug | | 69,930 | |
| Non-drug Medical Consumables | | 24,230 | |
| Laboratory | | 13,500 | |
| Essential Drug Kits (formerly MOH-provided) | | 80,000 | |
| Total Supply Expense | | | KSh 199,170 |
| Other Expenses | | | |
| Telephone, Fax, Printing | | 2,200 | |
| Transport & Vehicle | | 10,520 | |
| Equipment Rental, Main., Repair | | 490 | |
| Facility Main., Repair, Utilities | | 9,440 | |
| Other | | 9,380 | |
| Total Other Expense | | | KSh 32,030 |

| | | |
|---|---|---|
| RECURRENT MONTHLY COSTS COVERED BY CLINIC FEES | KSh | 296,770 |
| LESS PROJECT ALLOWANCE | | 25,000 |
| | | 271,770 |
| TOTAL MONTHLY CLINIC CONTRIBUTION @ Ksh 65 per dollar | $ | 4,180 |
| PROJECTED ANNUAL CLINIC FEE-FOR-SERVICE CONTRIB. | $ | 50,160 |

RECURRENT MONTHLY COSTS, CURRENTLY PAID WITH USAID FUNDS, FOR WHICH A SOURCE OF SUPPORT HAS NOT YET BEEN IDENTIFIED

| | | |
|---|---|---|
| Employee Expense | | |
| CBHC Staff Salaries / Benefits | KSh 94,090 | |
| Administrator Benefits | 3,340 | |
| Clerical Comp, Taxes, Benefits | 9,810 | |
| Other Personnel Expense | 16,390 | |
| Total Employee Expense | | KSh 123,630 |
| Office & CBHC Expenses | | |
| Office/General Supplies | KSh 7,260 | |
| Equip. & Facility Rental/Repairs/Main. | 4,090 | |
| Printing, Postage, Telephone, Fax | 6,930 | |
| Total Office & CBHC Expense | | KSh 18,280 |
| Other Expenses | | |
| Educational Lectures | KSh 100 | |
| In-country Travel, Auto, Parking | 34,460 | |
| Other (includes 25,000 project allow.) | 45,600 | |
| Total Other Expenses | | KSh 80,160 |

TOTAL UNMET RECURRENT MONTHLY EXPENSES KSh 222,070
(CURRENTLY PAID BY USAID)

| | |
|---|---|
| TOTAL UNMET MONTHLY EXPENSES @ KSh 65 per dollar | $ 3,420 |
| PROJECTED UNMET ANNUAL PROGRAM EXPENSES | $ 41,040 |
| TOTAL PROJECTED RECURRENT ANNUAL PROJECT COSTS | $111,960 |
| RECURRENT ANNUAL COSTS BORNE BY COMMUNITY & MOH | $ 70,920 |
| PROJECTED UNMET ANNUAL PROGRAM EXPENSES | $ 41,040 |

Does the community agree to pay for any part of the costs of preventive and promotive health activities?

The fee structure for curative services at the Health Center is designed to support preventive services free-of-charge to the community. All those using the Health Center are thereby contributing to the costs of preventive and promotive health activities.

The CHWs contribute toward the establishment of IGAs, which support their preventive and promotive activities. The community also contributes a large amount of time to these activities.

Is the Government prepared to assume any part of the recurrent costs?

The government currently pays the salaries of the seconded staff. There is a possibility that medical kits of pharmaceuticals may be resumed in the future.

What strategies is the PVO implementing to reduce costs and make the project more efficient?
What specific cost-recovery mechanisms are being implemented to offset project expenditures?

The fee schedule for the clinic has been reviewed and increased fees went into effect on 1 August 1993. New sources of supplies and pharmaceuticals are continually being researched. Income-generating projects such as the development of a sanitary market or jua kali sheds are being pursued with the idea of using the rents to help offset the costs of the project. The project is pursuing relationships with the University of Nairobi Medical School and Nursing School as a way of obtaining a continuous source of human resources educated in matters of medicine and community health care. These students and supervising faculty are working on research projects in the community, assisting in the health center, supervising CHWs, etc.

Are the costs reasonable, given the environment in which the project operates; is the cost per potential beneficiary appropriate?

The costs are reasonable considering the environment in which the project operates. When the original budget was prepared the exchange rate was 22 Ksh/U.S. dollar; at the time of this report, the exchange rate is 65 Ksh/U.S. dollar and has been as high as 80 Ksh/U.S. dollar during the past 12 months. The project has had to cope with escalating inflation (estimated at 200 percent for such items as drugs and medical supplies) and devaluation of currency since the beginning of the grant period.

With the new population estimates and actual project expenditures for the first 24 months of the project, total cost per beneficiary is $15.00, or $7.50 per beneficiary annualized. USAID's cost per beneficiary is $9.98 for the two year period, or $4.99 annualized. This cost per beneficiary includes the preventive, promotive, and curative services being provided by the project.

Identify costs which are not likely to be sustainable.

Vehicle costs and salaries for the CBHC staff and other costs associated with the community-based program.

## 8. RECOMMENDATIONS

What steps should be taken by PVO field staff and headquarters for the project to achieve its output and outcome objectives by the end of the project?

- Improve Health Information System, and revise reporting mechanism for the CHWs.
  - Begin tracking patients who come to the health center by geographic locality to enable separation of patient's data from within the project area from those outside the area.
  - Integrate data collected by health center with data collected by CHWs and CHWRs by locality.
  - Improve accuracy and reliability of data being reported by CI-IWs and CHWRs through combination of education about the importance of data and how it is used, and introduction of simple checks and balances.
  - Modify reporting to include a quantitative presentation which facilitates easy identification of changes from month to month, quarter to quarter.
  - Identify reporting mechanisms successfully implemented by other CBHC programs involving both literate and non-literate CHWs.

- Update lessons as appropriate for CHWs incorporating modifications to commonly accepted protocols coming out of new research, feedback from the CHWs and CHWRs on usefulness of information and new concerns being identified in their work, as well as evaluation data received on effectiveness and appropriateness of lessons taught to mothers in the community.

- Revise or improve teaching methods to keep material lively and interesting, e.g., folk media using song, dance, drama.

- Establish a sustainable system of evaluating what has been learned by the CHWs and the people with whom they work.

- Assess appropriateness of visual aids being used in CI-IW training; investigate what other NGOs/PVOs are using.

- Explore ways to more actively involve the community health nurses at the health center, and students and faculty from the Nursing School in the supervision of CI-IWs and CHWRs.

Are there any steps the project and PVO headquarters can take to make the project activities more sustainable?

- The project is seeking to integrate the University of Nairobi Medical School and Nursing School with the health center and CBHC program in Dagoretti. By involving students and faculty from the University in the program, assistance can be obtained in program supervision, continuing education, evaluation of program effectiveness, and research of community needs.

- A Peace Corps Volunteer has been assigned to the project to work with community volunteers in the development of IGAs. The PCV is also working with the community in the development of a sanitary market; funding for construction has already been committed. Participation in these programs is limited to community volunteers participating in the CBHC, thereby providing an incentive for continued involvement. This program will have a good start but will need ongoing support if it is to be sustainable beyond the current grant period.

- New ways to integrate the health center with the CBHC program need to be explored.

- Additional revenue sources need to be pursued to support CBHC program expenses after grant monies end. Secondary sources of income, apart from grant monies, should be pursued to increase the financial self-sustainability of the project as a whole. Financial requirements for CBHC and the Health Center operating deficit need to be accounted for through revenues generated from sources other than fee increases or grants.

Are there any steps the project and PVO headquarters should take to make the project activities more applicable, the staff more competent, or the services of higher quality?

- Most project objectives are being met, however, community needs for family planning and AIDS education and prevention continue to increase. Without jeopardizing other interventions, emphasis should be focused on these two high need areas.

- Project staff need further training in budget management, financial reporting, data analysis, and program planning. Community volunteers continue to need basic training in accounting, small business development, personal and small business financial management skills, and small loan financing. The Board of Management needs formal training in the role and responsibilities of Board members.

- Adding a Kenyan physician to the Health Center would provide additional level of care than what can be provided at the present time. Planning needs to continue on how to add a Kenyan physician which will be affordable and beneficial to the health center and community.

- Strengthening the relationships with the University of Nairobi Medical School and Nursing School will provide multiple opportunities for learning by students, faculty, clinic staff, and community volunteers; improved quality of care; further integration of the health center with the CBHC; and research of community needs.

Are there any steps the project and PVO headquarters should take to make the lessons learned by this project more widely known by other child survival or development projects sponsored by A.I.D., or by PVO?

Since this project is an example of a joint effort by a PVO, a private, indigenous foundation, and the Ministry of Health, and because it is one of the early examples of effective fee-for-service clinics in Kenya, there are many lessons which could be shared with other organizations. Discussions are presently underway with the Nairobi City Council, Ministry of Health, World Bank, and the Chandaria Foundation to replicate the experience at the health center with other government-owned clinics in Nairobi. USAID Mission in Nairobi has been provided regular utilization and financial reports of the health center's experience since its opening. An administrative manual has been developed to guide current clinic operations and assist in the establishment of other public/private clinic partnerships.

Finally, are there any issues or actions that A.I.D. should consider as a result of this evaluation?

Sustainability of community-based health projects is extremely difficult. Given the poor economic circumstances of the community, sustainability of program objectives may take longer than originally estimated. MIHV Board members who have successfully institutionalized businesses in the U.S. advise that a minimum of ten years is needed to establish sustainability. In a developing country where resources and infrastructure are considerably less, it would generally take longer. We would recommend that USAID consider lo-12 years a bare minimum for achieving sustainability, and approve applications for project extensions/expansions accordingly.

The process of doing a Mid-term Evaluation is useful in assessing progress against project objectives and proposed strategies. It also provides an excellent training opportunity to teach local staff and community members about the value of data collection, its uses in program planning, and provides hands-on experience with a

variety of evaluation methods. Deadlines are useful as goals in structuring a project's activities, but meeting deadlines should not usurp the value of the process for providing training and a mechanism for obtaining local ownership.

The current limit on PVOs' home office budgets is too restrictive, resulting in bare bones staffing, inadequate development of organizational infrastructure, and negligible planning and preparation for potential new opportunities and roles in international development. The benefits which USAID is obtaining through its work with PVOs is a bargain by any measure. Yet, an effective partnership between USAID and PVOs needs to be fair to both parties.

The experience of MIHV this past year has demonstrated the importance of the backstopping role which the home office plays. The project required extensive support from the home office in order to maintain its activities; the preparation of this Mid-term report is primarily a home office effort. Yet, bare bones staffing left the organization with no extra resources to shift. The considerable reporting requirements associated with USAID grants requires far more home office support than what the current guidelines allow. As it is, MIHV is already at an 86 percent match for home office project support, and there is still one year remaining in the grant period.

## 9. SUMMARY.

The evaluation team consisted of Alemu Mammo (Team Leader), Jaime Henriguez (USAID Project Officer), Lois Miano (Deputy Director for Programs), Kate Rardin (MIHV Program Officer), with support from Loyce Jones (Deputy Director for Administration), Kate Colson (USAID Nairobi Mission), and other project and health center staff. Approximately two weeks were spent by the evaluation team in data gathering and analysis. An additional three - four weeks is estimated for report writing and preparation of the pipeline analysis. Total cost of the evaluation (excluding time of project and home office staff) has been $4,700. During the two weeks that the evaluation team spent in the field members made spent approximately half of the time in the field observing activities and interviewing project staff, beneficiaries, and representatives from the government and other connected organizations. This evaluation did not include a quantitative survey. Information was obtained through observation, interview, and existing project documentation.

The project has achieved a number of important accomplishments. Overall, nearly 100% of the primary targeted population (children under 5 and women of child-bearing age) has been served by the project. Immunization coverage in the area is now at least 90%. No cases of moderate or severe malnutrition have been reported for over a year, nor have any cases of dehydration needed referral to the hospital since April. The project is also meeting its maternal health objectives, with consistently increasing antenatal visits (nearly 5,000 to date) and family planning

visits (over 6,000). In addition, 237 community health workers have completed training through the project, and 12 traditional birth attendants have completed advanced training. Condom distribution has increased steadily, surpassing original objectives. At the same time, nearly all women in the project area are believed to know about AIDS prevention and transmission. Finally, the project has addressed certain environmental health hazards. No burns have been reported in the target population for over three months, and home visits have greatly increased the number of homes with garbage pits and pit latrines.

Overall, the project appears to be using an appropriate mix of interventions for the needs of its target population. In addition, its private/public arrangement with the Ministry of Health and extensive use of community volunteers has successfully integrated the project into the community and maximized the project's resources and level of services. Project programming could benefit, however, from expanded interventions in HIV/AIDS and family planning. The Health Information System also needs refinement to track more precisely the populations benefitting from the project and their needs over time. Many of the lessons learned are being documented and have informed the development of MIHV's new child survival project in Uganda. The project's key recommendations relate to the need for better information and reporting systems, updated training and evaluation methods, increased involvement by community health nurses at the clinic and the Medical and Nursing Schools, and further development of income-generating activities and alternative revenue sources. Finally, it is recommended that USAID consider 10-12 years as a bare minimum for the achievement of sustainability in community-based health projects.

Evaluation results have already been shared with project staff in Kenya and the home office, and appropriate contacts at the USAID Mission in Nairobi. Additional feedback of evaluation results will be provided to the MIHV Executive Committee, Board of Management of the Health Center, the Joint Health Committee, and appropriate contacts at the Ministry of Health, University of Nairobi Medical and Nursing Schools, and Nairobi City Council. Authors of the Mid-term Evaluation report include Dr. Angie Guggenberger Nelson, Kate Rardin, Dr. Alemu Mammo, Michael Smyser, Lois Miano, Dr. Royce Truex, Leonida Atieno, and Sandra Truex.